

IN THE SPECIFICATION:

Please delete the paragraph on page 1, line 23 through page 2, line 2, and insert the following replacement paragraph in the same location:

Packet switching has long been used as an alternative to conventional circuit switches. One reason is because conventional circuit switches are far too expensive for intensive or interactive communications. Packet switching involves the transmission of data packets across a shared network. These data packets are also called datagrams. Data packets are individually addressed so that packet switches can route each packet over the most appropriate and available circuit. This allows each packet to survive independently. Each packet may represent an individual set of data, or a ~~large~~ larger set of user data can be fragmented into multiple packets. In either case, data propagates through the network using independent packets.

Please delete the paragraph on page 7, lines 1-6, and insert the following replacement paragraph in the same location:

The present invention further comprises a redundant switching system embodying the method described above. The redundant switching system comprises a plurality of switch fabric elements that ~~except accept~~ inbound cells and then direct those cells to output ports as outbound cells. The redundant switching system further comprises an input line card, an integrity manager, and an output line card.

Please delete the paragraph on page 9, lines 5-9, and insert the following replacement paragraph in the same location:

The present invention may further comprise an input line card comprising an ingress buffer and a cell replicator. The input line card of the present invention may further ~~comprises comprise~~ an input network processor that adjusts a read pointer to the egress buffer enabling the egress buffer to resend cells. upon command.

Please delete the paragraph on page 9, lines 11-17, and insert the following replacement paragraph in the same location:

The present invention may also ~~comprises~~ comprise an output line card. The output line card comprises an egress buffer, an interface selection unit and a cell dispatch unit. The interface selection unit comprises a plurality of cell interfaces and is capable of selecting a cell stream from one of these cell interfaces. Data cells received from a selected cell stream are directed to the egress buffer. The cell dispatch unit retrieves the cells from the egress buffer and delivers them to external interfaces.

Please delete the paragraph on page 10, lines 14-15, and insert the following replacement paragraph in the same location:

Fig. 3 is a block diagram of an output line card 10 according to the present invention;

Please delete the paragraph on page 11, lines 3-11, and insert the following replacement paragraph in the same location:

Fig. 1 is a block diagram depicting a redundant switching system according to one embodiment of the present invention that prevents cell loss. A switching system according to the present invention comprises of an input line card 5, an output line card 10 and a plurality of switch fabric element 15. The input line card 5 receives datagrams from external sources by means of an inbound data interface 20. The input line card 5 processes the datagrams by segmenting each datagram into one or more data cells where each data cell is of a fixed size. The actual size of the cells created by the input line card 5 can be varied according to the specific application of the switching system.

Please delete the paragraph on page 16, lines 6-11, and insert the following replacement paragraph in the same location:

In the ~~in the~~ event that the new active cell stream lags its predecessor, a gap will be formed in the egress buffer 90. In this event, the output network processor 85 requests the input line card 5 to retransmit those cells lost during the switch-over event. The output network processor 85 adjusts the write pointer into the egress buffer 90 so that the retransmitted cells can be stored in the egress buffer 90 immediately upon their arrival.

Please delete the paragraph on page 16, line 28 through page 17, line 12, and insert the following replacement paragraph in the same location:

Each substructure 125 itself comprises a number of buckets 130 for each output port that the output line card 10 services. As cells arrive in the egress buffer 90, they are retrieved by the output network processor 85 and used to ~~reassemble~~ reassemble datagrams. The output network processor 85 examines each cell and determines its priority level, the port it is bound for, and what datagram it belongs to. The number of buckets 130 provided for each output port depends on the number of datagrams that must be simultaneously reassembled. The number of datagrams that must be simultaneously reassembled is determined by the number of cells carried in the egress buffer 90. Empirical analysis is required for each particular embodiment to determine the size of both the egress buffer 90 and the ingress buffer 55. Factors that contribute to the size of both the egress buffer 90 and the ingress buffer 55 include the maximum size of a datagram that the switching system can process and the latency affiliated with switching from a first active switch fabric element to a second active switch fabric element during switch-over.

Please delete the paragraph on page 18, lines 14-23, and insert the following replacement paragraph in the same location:

Fig. 6 is a flow diagram that depicts the process of buffer management according to one embodiment of the present invention. The first thing that occurs after a switch-over event is determination if there is a gap or an overlap in the stream of cells arriving from the primary and alternate switch fabric elements. If there is a gap (step 205), cells must be resent from the ingress buffer (step 210) to prevent cell loss. These cells are then routed through the newly designated active switch fabric and stored in the egress buffer. If there is an overlap (Step 215), the egress buffer must be retarded so that the same cells are not sent twice (step 220). Once buffer management is complete, the cells are then dispatched from the egress buffer (step 225).